

REMARKS/ARGUMENTS

1.) Claim Rejections – 35 U.S.C. §103(a)

The Examiner has maintained the rejection of claims 11-20 as being unpatentable over Hayashi (US-PGPUB 2004/0152453 A1) in view of Meago (US-PGPUB 2004/0223513 A1) and Ohlsson, *et al.* (US-PGPUB 2002/0068571 A1). The Applicants, again, traverse the rejections. For completeness, the Applicants will respond directly to the Examiner's "Response to Amendment" and "Remarks" from the present office action, incorporating herein, as necessary, the substance of Applicants' previously-submitted arguments.

Claim 11 recites:

11. A method for registration of a drift Radio Network Controller (DRNC) to be capable of handling user equipment units (UE) supporting multimedia broadcast multicast service (MBMS), said method performed in a radio network control node acting across an Iur interface as a drift radio network control node for one or more user equipment units registering for a MBMS session, said method comprising the steps of:

defining a counter and a first threshold value;
using the counter for counting of a set of power consuming events occurring at the drift radio network control node; and,
delaying registration of the drift radio network control node with a core network node until the counter has exceeded the first threshold value. (emphasis added)

The teaching of Hayashi is directed to solving a problem in MBMS systems wherein a "moving source RNC [] has no means for learning that a [user equipment] has left the cell [] under its control." (paragraph 0013) To overcome that problem, Hayashi discloses a mechanism wherein, when the UE has moved from a first cell to a second cell, the RNC in the second cell sends a message that notifies the RNC in the first cell that the UE has left. (Paragraph 0035). The RNC in the first cell can then decrement the number of UEs accessing an MBMS broadcast in the first cell. The RNC in the second cell increments a similar counter for UEs accessing a given MBMS broadcast; when the number meets or exceeds a threshold, the switch is made from PtP to a PtM; see, Figure 4 and description at paragraphs 0039-0040. In contrast, although the Applicants'

invention can be utilized in a system that functions as described by Hayashi, the invention recited in claim 11 provides additional functionality.

In response to the Applicants' prior arguments, the Examiner points to the teachings in Hayashi that describes switching between a PtP (point-to-point) system and PtM (point-to-multipoint) system as a function of a number of user equipments being equal to or more than a threshold value. As described *supra*, the Applicants agree that Hayashi teaches such functionality. It is noted that the Applicants' disclosure, however, also describes that functionality (see Figure 6 and Paragraphs 0074-0076). The functionality recited in claim 11, however, is distinct and is disclosed by Applicants with respect to additional functionality illustrated in Figures 7 and 8; specifically, the functionality in steps 7-6D, 7-7 and 7-8 of Figure 7 and the functionality in steps 8-6D, 8-7 and 8-8 of Figure 8. As noted in paragraph 0081:

"The three methods where MBMS context is built up in RAN as described above are (to some extent) complementary and, in order to reduce frequent explicit registration/de-registration, alternate triggering conditions are proposed . . . The technology disclosed herein and illustrated, e.g., in Fig. 7 and Fig. 8, reduces explicit registrations so they are only performed when a point-to-multipoint MBMS transmission resource is set up. With the prior [art] scheme the registration is performed equally for both the ptpt and ptm decision. The registration with a following ptpt decision takes longer time than setting up a ptpt bearer without registration, so registration with ptpt should be avoided."

In order to avoid unnecessary, or undesirable, registrations of a DRNC with a core network node, such registration is delayed until a counter of power consuming events exceeds a threshold value. As recited in claims 12 and 13, respectively, the power consuming events can be a number of user equipment units for which a lur linking procedure is performed or time periods elapsed since an lur linking procedure. In either case, however, Hayashi does not describe delaying the registration of a DRNC with a core network node until such threshold is exceeded. As can be seen in Figure 1 of Applicants' figures, an RNC is not a core network node. As those skilled in the art will recognize, that is also reflected in Figure 5 of Hayashi. For the three embodiments described by Hayashi with respect to Figures 2, 3 and 4, no signaling is illustrated or described between the RNCs and a core network node, such as an SGSN. In particular,

for the embodiment illustrated in Figure 4, for which the threshold comparison is performed, no signaling for registration purposes is illustrated as occurring with any core network node. Thus, the Examiner's reliance on Hayashi does not disclose delaying **registration of a drift radio network control node with a core network node** until a counter has exceeded a threshold value and, therefore, the Examiner has not established a *prima facie* case of obviousness of claim 11 over Hayashi in view of Ohlsson and Meago.

Whereas claim 16 recites limitations analogous to those of claim 11, it is also not obvious over Hayashi in view of Ohlsson and Meago. Similarly, whereas claims 12-15 and 17-20 are dependent from claims 11 and 16, respectively, and include the limitations of their respective base claims, they are also not obvious in view of those references.

* * *

CONCLUSION

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 11-20.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,


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